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a force of a magnetic field formed in the parallel direction with the rotating shaft and thus minimizing the lateral vibration of the shaft under rotation.

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7. (Amended) An electrical apparatus comprising:
a shaft having an axial direction and a radial direction;
a plurality of supports extending radially from the shaft;
ends of each support having a pair of magnets mounted thereto, each pair containing magnets of opposite polarity, each magnet having pole faces extending parallel to the axial direction of the shaft;
a plurality of arcuate stators surrounding the shaft, each stator having a leg with a coil attached thereto and ends that mutually face each other to define a gap through which the pairs of magnets rotate; and
adjacent magnet pairs having magnetic polarities which are reversed with respect to each other.

REMARKS

Claims 1-3 and 5-7 are now pending in the application. Minor amendments have been made to the to simply overcome the objections and rejections of the claims under 35 U.S.C. § 112. The Examiner is respectfully requested to reconsider and withdraw the rejection(s) in view of the amendments and remarks contained herein.

REJECTION UNDER 35 U.S.C. § 112

Applicant has carefully considered the Examiner's objections and rejections of the claims based upon informalities of the originally presented claim language. Applicant has amended these claims to render these issues moot.

DRAWINGS

Applicant has included a Request for Approval of Drawing Changes which would label certain of the figures as "PRIOR ART" in accordance with the suggestions made by the Examiner. This informality should also now be moot.

REJECTION UNDER 35 U.S.C. § 102 and 103

Applicant would like to point the Examiner to MPEP section 2141. In section 2141, it states,

"When applying 35 U.S.C. § 103, the following tenets of patent law must be adhered to:

- (A) The claimed invention must be considered as a whole;
- (B) The references must be considered as a whole and must suggest the desirability and thus the obviousness of making the combination;
- (C) The references must be viewed without the benefit of impermissible hindsight vision afforded by the claimed invention; and
- (D) Reasonable expectation of success is the standard with which obviousness is determined."

Hodosh v. Block Drug Co., Inc., 786 F.2d 1136, 1143 n.5, 229 USPQ 182, 187 n.5 (Fed. Cir. 1986)

In the previous Office Action the Examiner admitted that the Rakestraw et al reference failed to disclose:

- Ends of each support having a pair of magnets mounted thereon;
- Each pair containing magnets of opposite polarity;
- Each magnet having pole faces extending parallel to the axial direction of the shaft; and

- The polarity of adjacent magnets being reversed with respect to each other.

In order to support his rejection of Claim 7 under Section 103, the Examiner relied upon the disclosure in the patent to Oney. This rejection is respectfully traversed.

The Examiner alleges that Oney discloses magnetic pole faces "extending parallel to the axial direction of the shaft". This appears to be in error. For example, Figure 3 of the Oney appears to show the faces of the pole pieces being perpendicular to the axis of the shaft 15. Even if Oney provided all of the missing structure disclosed in Rakestraw, the references do not suggest the desirability of making the proposed combination. In fact, it is submitted that the Examiner is using a prohibited hindsight to reject these claims. Just because the two references may be in the same field of endeavor does not mean that the art provides the motivation or desirability to arrive at Applicant's claimed invention. As claim 1 and 7 call for, among other things, the magnetic pole pieces being arranged in parallel with respect to the shaft in a manner not suggested by any of the art, these claims and their dependent claims should now be in condition for allowance.

CONCLUSION

It is believed that all of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicant therefore respectfully requests that the Examiner reconsider and withdraw all presently outstanding rejections. It is believed that a full and complete response has been made to the outstanding Office Action, and as such, the present application is in condition for allowance. Thus, prompt

and favorable consideration of this amendment is respectfully requested. If the Examiner believes that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at (248) 641-1600.

Respectfully submitted,

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ATTACHMENT FOR CLAIM AMENDMENTS

The following is a marked up version of each amended claim in which underlines indicates insertions and brackets indicate deletions.

1. (Amended) A magnetic circuit for a rotating apparatus having a parallel structure or a skew structure of magnet pole pieces of magnets or armatures with respect to a shaft, comprising:

a rotating shaft;

a plurality of supporters fixedly mounted in a perpendicular direction to the circumference of the rotating shaft;

a rotor having a plurality of [rotors] magnets rotated by attraction force and repulsion force of a magnetic field, each magnet having a magnet pole piece being arranged in parallel with respect to the shaft and located on [each] an end of one of the plurality of supporters; and

a plurality of armatures (stators) each having a coil [wound on the body thereof], [the] each coil being mounted at an interval [outside] outside the rotors and receiving induced [alternate] magnetic flux of the rotors, [the alternate magnetic flux generated when rotated,] and said magnet pole pieces being arranged in parallel or in skew with the rotating shaft.

3. (Amended) The magnetic circuit for a rotating apparatus as claimed in claim 1, wherein the armatures have the parallel structure or the skew structure of magnet pole

pieces of magnets or armatures with respect to the shaft, and the magnets or armatures are C-shaped [one of C-type, U-type, and I-type].

5. (Amended) The magnetic circuit for a rotating apparatus of claim 1 wherein [which comprises,] the magnet pole pieces of the magnet or the armatures having the parallel structure or the skew structure with respect to the shaft and the rotors being rotated by a force of a magnetic field formed in the parallel direction with the rotating shaft and thus minimizing the lateral vibration of the shaft under rotation.

7. (Amended) An electrical [Electrical] apparatus comprising:
a shaft having an axial direction and a radial direction;
a plurality of supports extending radially from the shaft;
ends of each support having a pair of magnets mounted thereto, each pair containing magnets of opposite polarity, each magnet having pole faces extending parallel to the axial direction of the shaft;
a plurality of arcuate stators surrounding the shaft, each stator having a leg with a coil attached thereto and ends that mutually face each other to define a gap through which the pairs of magnets rotate; and
[the polarity of]adjacent magnet pairs having magnetic polarities which are [being] reversed with respect to each other.